

Amendments to the Claims

Please cancel Claims 1-9, 15-19, 21 and 23 without prejudice to or disclaimer of the subject matter recited therein.

Please amend Claims 20, 22 and 26 to read as follows.

Claims 1-19 (cancelled)

20. (Currently amended) In combination, a print head and a printing apparatus which performs printing by moving a carriage unit, capable of holding said printhead having a plurality of heater resistances, over a print medium based on information transmitted by an external apparatus,

said printhead comprising:

a switching device for controlling each of the plurality of heater resistances; and

a detection resistance having a property corresponding to a resistance property of the heater resistances;

said printing apparatus comprising:

a voltage control unit for adjusting a driving voltage generated in said printing apparatus, said voltage control unit comprising a voltage converter for providing a voltage to the heater resistances, a PWM controller for controlling a pulse signal inputted into said voltage converter in order to adjust the voltage provided by said

voltage converter, first internal resistances for dividing the voltage provided by said voltage converter into a first divided voltage, a second internal resistance, connected with the detection resistance, for dividing a voltage into a second divided voltage, and a comparison circuit for comparing the first divided voltage with the second divided voltage, and outputting the comparison result to said PWM controller,

wherein said detection resistance is manufactured by the same semiconductor deposition process as the heater resistances, and said voltage control unit is provided on the carriage unit.

Claim 21 (cancelled)

22. (Currently amended) A printing apparatus which performs printing by scanning a carriage unit, capable of holding a printhead having a plurality of heater resistances, over a print medium based on information transmitted by an external apparatus,

the printhead comprising:

a resistance which corresponds to a property of the plurality of heater resistances for printing; and

said printing apparatus comprising:

a voltage control unit for controlling the printhead and comprising voltage generation means for adjusting a voltage generated in the printing apparatus by using an internal resistance to drive the printhead,

wherein the internal resistance and said resistance are connected in series,
said voltage generation means adjusts the voltage generated in the printing apparatus based
on a voltage divided by the internal resistance and said resistance, ~~and~~

wherein said voltage control unit is provided on the carriage unit, and

wherein said voltage generation means compares the voltage divided by the
internal resistance and said resistance with a driving voltage which drives the printhead,
then controls the driving voltage based on the comparison.

Claim 23 (cancelled)

24. (Previously presented) The printing apparatus according to claim
22, further comprising:

a main board for controlling the printing apparatus,

wherein said voltage generation means adjusts the voltage outputted from
said main board.

25. (Previously presented) The printing apparatus according to claim
22, wherein said resistance and the heater resistances are manufactured by the same
semiconductor deposition process.

26. (Currently amended) ~~The printing apparatus according to claim 22;~~
~~said voltage control unit further comprising:~~ A printing apparatus which performs printing

by scanning a carriage unit, capable of holding a printhead having a plurality of heater resistances, over a print medium based on information transmitted by an external apparatus,

the printhead comprising:

a resistance which corresponds to a property of the plurality of heater resistances for printing;

said printing apparatus comprising:

a voltage control unit for controlling the printhead and comprising voltage generation means for adjusting a voltage generated in the printing apparatus by using an internal resistance to drive the printhead, a voltage converter for providing a voltage to the heater ~~resistances~~; resistances, a PWM controller for controlling a pulse signal inputted into said voltage converter in order to adjust the voltage provided by said voltage ~~converter~~; converter, first internal resistances for dividing the voltage provided by said voltage converter into a first divided ~~voltage~~; voltage, a second internal resistance, connected with said resistance, for dividing a predetermined voltage into a second divided ~~voltage~~; voltage, and a comparison circuit for comparing the first divided voltage with the second divided voltage, and outputting the comparison result to said PWM controller,

wherein the internal resistance and said resistance are connected in series,

said voltage generation means adjusts the voltage generated in the printing apparatus based on a voltage divided by the internal resistance and said resistance, and

wherein said voltage control unit is provided on the carriage unit.